

WHAT IS CLAIMED:

1. A method of manufacturing a flashlight assembly comprising the steps of:

providing a housing, said housing having a first interior compartment and a second interior compartment adjacent to said first compartment, said first and second interior compartments being separated by a wall, said first interior compartment having a first opening in one side thereof and said second interior compartment having a second opening in one side thereof;

providing at least one contact opening in said wall between said first and second interior compartments;

installing two contact sleeves in said second interior compartment, said contact sleeves having contact surfaces adjacent said contact opening; and

installing a lighting assembly in said first interior compartment, said lighting assembly having two contact arms extending therefrom, said contact arms extending through said at least one contact opening and contacting said contact surfaces of said contact sleeves.

2. The method of manufacturing a flashlight assembly of Claim 1, wherein said contact arms are spring biased.

3. The method of manufacturing a flashlight assembly of Claim 1, said lighting assembly further comprising:

a circuit board;

circuit traces on said circuit board;

an array of lighting elements installed on said circuit board in electrical communication with said circuit traces; and

two contact arms extending from an edge of said circuit board.

4. The method of manufacturing a flashlight assembly of Claim 1, further comprising the steps of:

installing a face plate over said first opening in said first interior compartment;
and

sealing said faceplate to said housing.

5. The method of manufacturing a flashlight assembly of Claim 4, wherein said step of sealing said faceplate to said housing is heat welding.

6. The method of manufacturing a flashlight assembly of Claim 3, further comprising the steps of:

installing a face plate over said first opening in said first interior compartment, said array of lighting elements extending through a corresponding array of openings in said face plate;

sealing said face plate to said housing; and

installing a sealant between said lighting elements and said openings in said faceplate.

7. The method of manufacturing a flashlight assembly of Claim 6, wherein said step of sealing said faceplate to said housing is heat welding.

8. The method of manufacturing a flashlight assembly of Claim 6, wherein said step of installing a sealant includes selecting a sealant from the group consisting of: epoxy and silicone.

9. The method of manufacturing a flashlight assembly of Claim 6, further comprising the step of:

installing a rotary switch actuator onto said faceplate.

10. The method of manufacturing a flashlight assembly of Claim 1, wherein said second interior compartment is configured to receive a battery, said battery having two contact surfaces in electrical communication with said contact sleeves.

11. The method of manufacturing a flashlight assembly of Claim 10, further comprising the steps of:

installing a battery into said second interior compartment; and

installing an endcap over said second opening in said second interior compartment.

12. A housing assembly for a flashlight comprising:

an exterior housing, said exterior housing having a first interior compartment and

a second interior compartment adjacent to said first compartment, said first and second interior compartments being separated by a wall, said first interior compartment having a first opening in one side thereof and said second interior compartment having a second opening in one side thereof;

at least one contact opening in said wall between said first and second interior compartments;

two contact sleeves in said second interior compartment, said contact sleeves having contact surfaces adjacent said contact opening;

a lighting assembly in said first interior compartment, said lighting assembly having two contact arms extending therefrom, said contact arms extending through said at least one contact opening and contacting said contact surfaces of said contact sleeves; and

means for selectibly operating said lighting assembly.

13. The housing assembly for a flashlight of Claim 12, said lighting assembly further comprising:

a circuit board;

circuit traces on said circuit board;

an array of lighting elements installed on said circuit board in electrical communication with said circuit traces; and

two contact arms extending from an edge of said circuit board.

14. The housing assembly for a flashlight of Claim 13, wherein said contact arms are spring biased.

15. The housing assembly for a flashlight of Claim 13, further comprising:

a face plate installed over said first opening in said first interior compartment, said array of lighting elements extending through a corresponding array of openings in said face plate.

16. The housing assembly for a flashlight of Claim 12, wherein said means for selectively operating said lighting assembly is a rotary switch actuator.

17. The housing assembly for a flashlight of Claim 12, wherein said second interior compartment is configured to receive a battery, said battery having two contact surfaces in electrical communication with said contact sleeves.

18. The housing assembly for a flashlight of Claim 17, further comprising:

a battery installed in said second interior compartment; and

an endcap over said second opening in said second interior compartment.

19. A waterproof flashlight comprising:

an exterior housing, said exterior housing having a first interior compartment and a second interior compartment adjacent to said first compartment, said first and second interior compartments being separated by a wall, said first interior compartment having

a first opening in one side thereof and said second interior compartment having a second opening in one side thereof;

at least one contact opening in said wall between said first and second interior compartments;

two contact sleeves in said second interior compartment, said contact sleeves having contact surfaces adjacent said contact opening;

a lighting assembly in said first interior compartment, said lighting assembly consisting of a circuit board, circuit traces on said circuit board, an array of lighting elements installed on said circuit board in electrical communication with said circuit traces, and two spring biased contact arms extending from an edge of said circuit board, said contact arms extending through said at least one contact opening and contacting said contact surfaces of said contact sleeves;

a face plate installed over said first opening in said first interior compartment, said array of lighting elements extending through a corresponding array of openings in said face plate, said faceplate being sealed to said housing;

a battery in said second interior housing, said battery having two contact surfaces in electrical communication with said contact sleeves;

an endcap installed over said second opening in said second interior compartment; and

means for selectively operating said flashlight.

20. The waterproof flashlight of claim 19, further comprising:

a sealant between said lighting elements and said openings in said faceplate.

21. The waterproof flashlight of claim 19, wherein said means for operating said flashlight is a magnetic actuator.